

Amendments to the Claims:

- 1 1. **(currently amended)** A coolable ~~Coolable~~ housing jacket (1) for an electric motor,
2 which is manufactured as a cast moulded part, is formed for receiving a concentric
3 internal rotor/stator arrangement (23) together with windings and winding overhang (24)
4 with a through-passage (3) that is symmetrical, concentric and/or coaxial with respect to a
5 hypothetical motor axis of rotation, and which is penetrated by one or more cooling
6 channels (2, 2a-h) to form a coolant circuit, characterised by a coating of the jacket inner
7 faces including the channel internal walls via a cathodic dip-varnishing process ~~or other~~
8 ~~dipping process~~.
- 1 2. **(currently amended)** A housing ~~Housing~~ jacket according to claim 1, characterised in
2 that the coating thickness is between 10 µm and 50 µm.
- 1 3. **(currently amended)** A housing ~~Housing~~ jacket according to claim 1 ~~or 2~~,
2 characterised by the use of a dipping varnish with a basis of epoxyaminourethane,
3 ~~preferably~~ deposited by a cathophoretic process.
- 1 4. **(currently amended)** A housing ~~Housing~~ jacket according to claim 1 ~~one of the~~
2 ~~preceding claims~~, characterised by the manufacture of the jacket body from aluminium.
- 1 5. **(currently amended)** A housing ~~Housing~~ jacket according to claim 1 ~~one of the~~
2 ~~preceding claims~~, characterised in that the cooling channels (2) end with apertures freely

3 accessible on the outside opening on to at least a first (5a) of plural housing jacket end
4 faces (5a, 5b).

1 6. **(currently amended)** A housing ~~Housing~~ jacket according to claim 5, characterised in
2 that in a second of the housing jacket end faces (5a, 5b) the cooling channels (2) end at a
3 housing wall formed by casting and are thus closed in a sealing-tight manner with respect
4 to the outside.

1 7. **(currently amended)** A housing ~~Housing~~ jacket according to ~~one of claims 5 or~~ claim
2 6, characterised in that the housing jacket end faces (5a, 5b) comprise two end faces
3 which are remote from one another and/or parallel to one another, the cooling channels
4 (2) in the first (5a) of which end freely accessibly on the exterior, and the cooling
5 channels (2) in the second (5b) of which end at a housing end wall (6) formed by casting
6 and are thus closed in a sealing-tight manner to the exterior.

1 8. **(currently amended)** A housing ~~Housing~~ jacket according to claim 6 ~~or~~ 7,
2 characterised in that the second (5b) housing jacket end face (6) or end wall formed by
3 casting abuts the remaining housing jacket body in an integral manner.

1 9. **(currently amended)** A housing ~~Housing~~ jacket according to claim 7 ~~or~~ 8,
2 characterised in that the second (5b) housing end wall (6) formed by casting is provided
3 inside with cavities such that they form deflection chambers and/or transverse ducts (14),
4 which communicate with the cooling channels (2), extend transverse to a hypothetical
5 motor axis of rotation, and join together the channel ends and/or the deflection chambers.

1 10. **(currently amended)** A housing ~~Housing~~ jacket according to ~~one of the preceding~~
2 ~~claims, but at least~~ claim 6, characterised in that the housing jacket end face (6) formed
3 by casting and sealing the cooling channels (2) has in its cast wall one or more bores (15)
4 or other perforations.

1 11. **(currently amended)** A housing ~~Housing~~ jacket according to claim 10, characterised
2 in that the bores or perforations have a female thread for the fixing of casting core
3 holding elements and/or for receiving screw-type seals (16).

1 12. **(currently amended)** A housing ~~Housing~~ jacket according to claim 11, characterised
2 in that the screw-type seals (16) are provided with sealing rings.

1 13. **(currently amended)** A housing ~~Housing~~ jacket according to claim 10, ~~11 or 12,~~
2 characterised in that the bores (15) or perforations are formed as inlets or outlets (7, 11)
3 for coolant and communicate with the cooling channels, optionally via a deflection
4 chamber and/or transverse duct (14).

1 14. **(currently amended)** A housing ~~Housing~~ jacket according to claim 5 ~~one of the~~
2 ~~preceding claims~~, characterised in that at least on a first housing jacket end face (5a)
3 fixing elements (18), ~~e.g. female threaded bores~~, are provided in order to mount a cover,
4 ~~e.g. an end shield or pressure ring~~ (17).